

MAKING A GOOD TABLE STUDY LAMP

A GOOD STUDY LAMP WILL:

Make it easy and comfortable for you to see.

Help to conserve your eyesight.

Speed up your reading.

Save your energy.

Make your room more attractive.

One particular design of lamp is shown here. You might like a different type. Here are some suggestions for changing this design:

STEM: A square stem made from four 1/4" pieces, or from a single piece 2" square with a 3/8" hole through it lengthwise. Or --

A round stem turned out on the lathe with any desired pattern worked out. Or a plain round stem. This can be wrapped with thick cord, reed or raffia, tacked and glued into place and shellacked to give an interesting appearance.

BASE: A round base made of two pieces, 3/4" wood dressed to 5/8", one 8" in diameter with a similar piece 5" in diameter on top of it. Or--

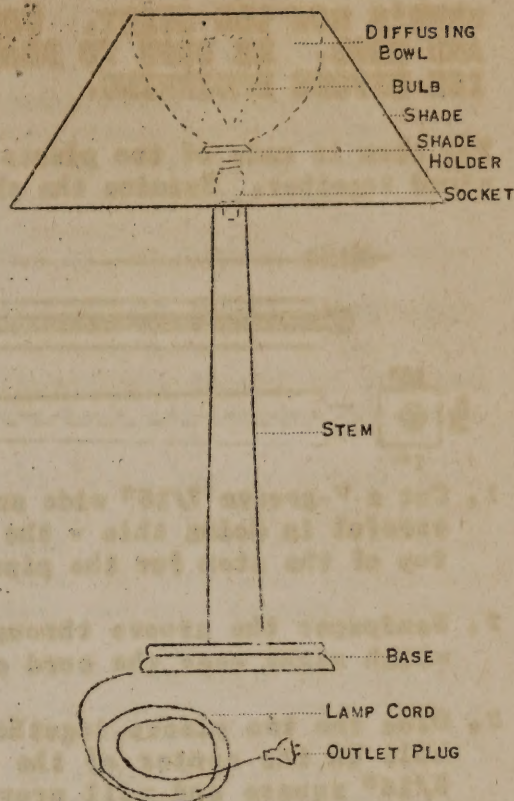
A square base of similar dimensions to the round one. Edges can be rounded. Or--

An octagonal base (8-sided) from two 3/4" pieces, 8 1/2" and 6 1/2" square, by cutting off their corners. Cut the design in paper first.

HERE'S WHAT YOU NEED TO MAKE THE LAMP SKETCHED ABOVE:

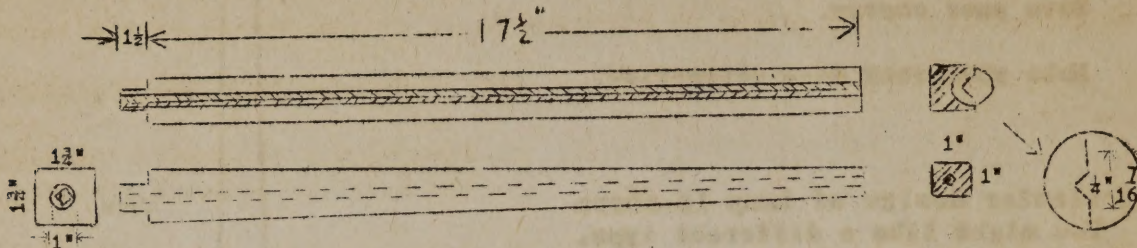
Cost

- 2 - 1"x2"x18" (from 1 - 1"x2"x36") lumber for stem of lamp...
- 2 - 3/4"x8"x8" (from 1 - 3/4"x8"x16") lumber for lamp base...
- *1 - Lamp socket with switch (threaded for 1/8" pipe).....
- 1 - 1/8" pipe nipple 1" or 1-1/2" long (to fit socket above).
- 1 - Shade holder to fit socket (supports diffusing bowl).....
- 1 - Diffusing bowl (8" for 100 w. or 9-3/8" for 150 w. bulb).
- 1 - Shade (white lined with bottom diameter 16" to 18").....
- 1 - Bulb (100 w. or 150 w. Mazda).....
- 1 - Lamp cord 9' (not smaller than No. 18 AWG conductor).....
- 1 - Outlet plug (preferably of rubber, easy to grasp).....
- 2 - No. 10 wood screws, glue for wood, fine sandpaper, tools.
- *If you desire to use a 3-light bulb (50-100-150 w.)
be sure to buy a socket with a three-position switch.



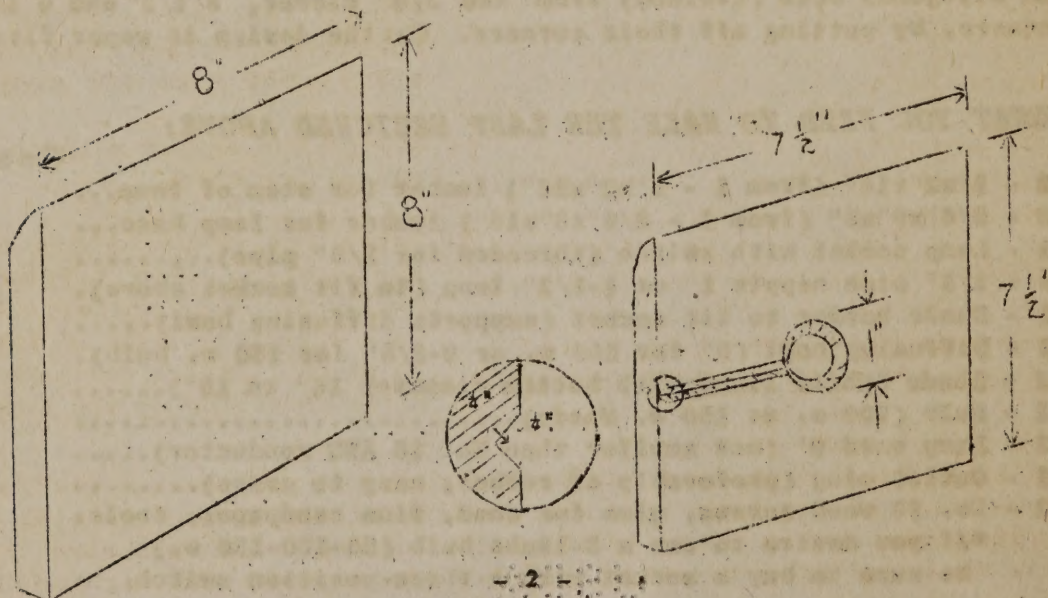
HERE'S HOW YOU START. FOLLOW THESE STEPS IN MAKING THE STEM AND BASE. BE SURE TO READ THE DIRECTIONS FROM START TO FINISH BEFORE BEGINNING.

The stem is made of two pieces 1" x 2" x 18" prepared as sketched, then glued together. Examine the sketch closely as you read the steps below.



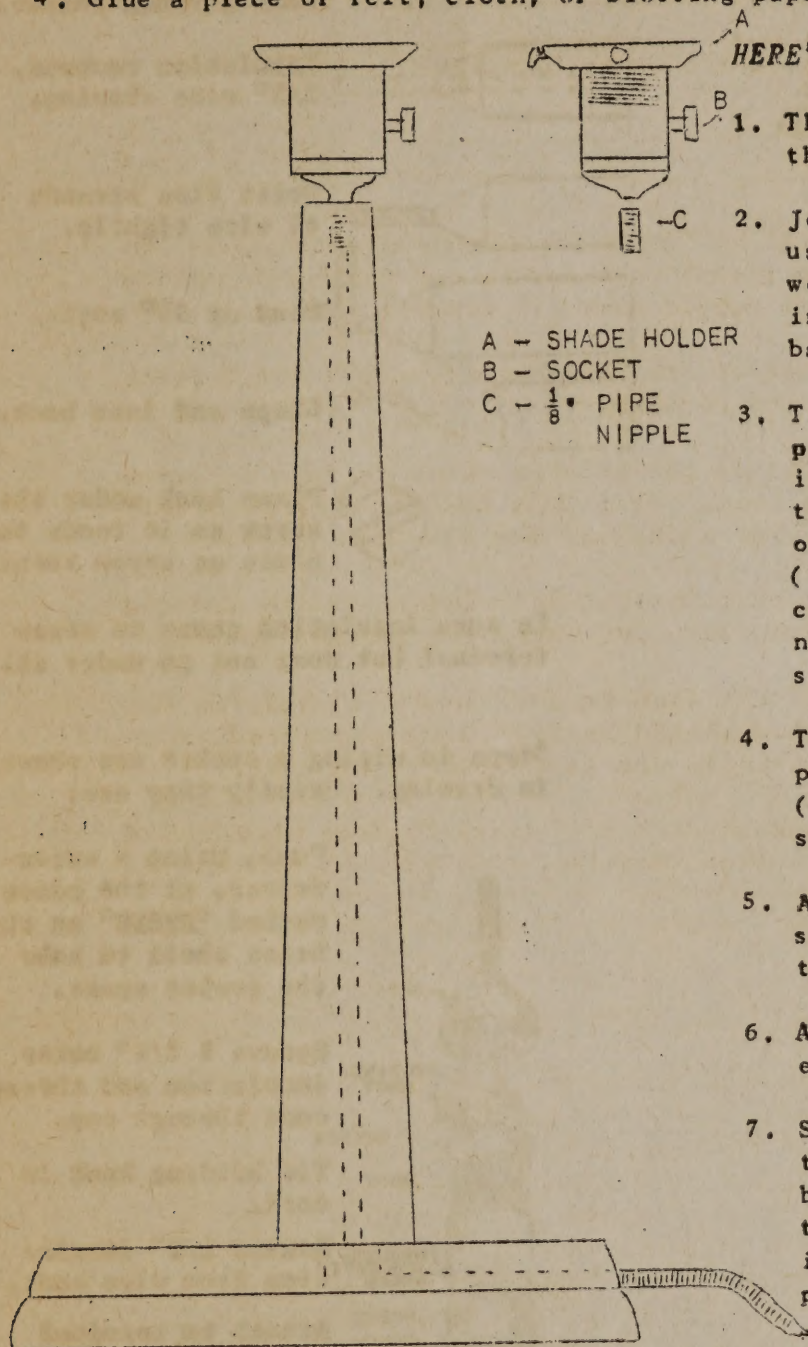
1. Cut a V-groove $7/16$ " wide and $1/4$ " deep the length of each piece. Be careful in doing this - the groove must not be cut too deeply at the top of the stem for the pipe nipple must fit tightly into it.
2. Sandpaper the groove throughout its length so that all rough spots which might wear the cord are removed.
3. Glue the two pieces together so the grooves match to form a square hole in the center of the stem. This hole will be approximately $5/16$ " square and will provide a channel for the lamp cord.
4. Trim and plane the stem so that it is $1\ 3/4$ " square at one end and 1" square at the other. Rub with fine sandpaper to make smooth.
5. Round off the large end of the stem to fit into a 1" hole in the base. This part of the stem should be $1/2$ " long and circular in shape. Use a wood rasp or knife and sandpaper to do this.

The base is made of two flat pieces each $3/4$ " thick (before planing and sandpapering) glued together. After dressing, they will be thinner.



Follow the steps below in making the base. The lower piece should be 8" square, and the upper piece 7 1/2" square.

1. Cut the pieces to the dimensions given above - plane and sandpaper.
2. Round the upper edges and corners of the pieces to provide a smooth appearance. Use a wood rasp or coarse file and sandpaper to do this.
3. Drill a 1" hole in the center of the upper piece and through it. On the underside of this piece cut a groove 1/4" wide and 1/4" deep from the edge of this hole to the edge of the piece. Rub this groove with sandpaper to provide a smooth channel for the cord through the base.
4. Glue a piece of felt, cloth, or blotting paper to the bottom of the base.



HERE'S HOW TO ASSEMBLE THE LAMP:

A - SHADE HOLDER
B - SOCKET
C - 1/8" PIPE NIPPLE

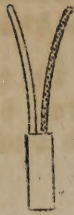
1. Thread the lamp cord through the base and through the stem.
2. Join stem and base together, using glue. Two flat-headed wood screws* through the base into the stem will secure the base and stem together firmly.
3. Thread the cord through the pipe nipple. Screw nipple into the hole at the top of the stem so that about 3/16" of it extends above the stem. (To do this more easily, you can attach the socket to the nipple temporarily; grasp the socket to turn the nipple.
4. The nipple should be glued in place to insure a solid union. (Remove nipple, add glue, and screw nipple back into place.)
5. Attach the lamp cord to the socket connectors, and screw the socket into the nipple.
6. Attach the outlet plug to the end of the cord.
7. Screw the shade holder onto the socket. Fit diffusing bowl into shade holder. Then turn screws to hold it firmly in place. Insert the bulb and place the shade on the lamp.

* If wood screws are used, they can be put through from the under side of the upper part of the base into the corners of the larger part of the stem. They must not be close to the cord. Screw in, then remove them, glue the base and stem together, replace the screws, and tighten them.

HERE'S HOW YOU MAKE THE CONNECTIONS IN YOUR LAMP CORD - FOLLOW THE STEPS SHOWN

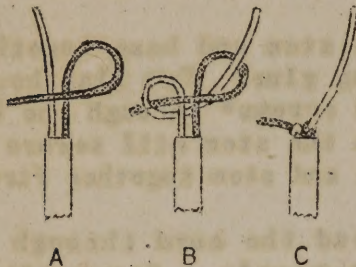
Attaching the outlet plug:

1. If fabric covered, remove about 1 1/2" outside insulation from end of cord. Do not cut insulation on small wires inside outer cover:

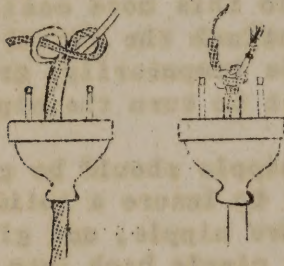


2. Pass cord through the outlet plug.

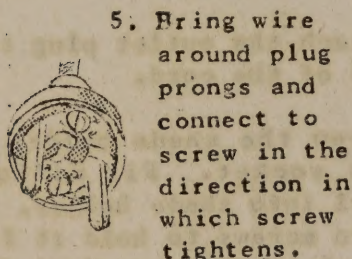
If cord has fabric covering, wind ends of covering with a piece of thread to avoid fray.



3. Tie an Underwriter's knot (or holding knot) in cord. Follow steps A, B, and C.



4. Remove 1/2" of insulation from ends of wires, twist strands of wire tightly.



6. Place the insulating cover over the plug.

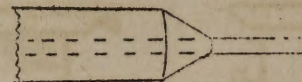
Removing insulation from a wire, and connecting wire to a screw:



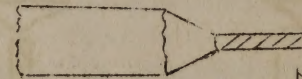
Knife starting at 30° angle to wire.



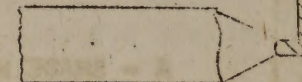
Knife moving parallel to the wire to avoid cutting fine wire strands inside.



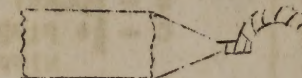
Insulation removed, 1/2" wire showing.



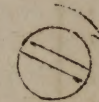
Twist fine strands of wire tightly.



Bend at 90° angle.



Shape end into hook.



Place hook under the screw so it tends to close as screw turns.

Be sure insulation comes to screw terminal but does not go under it.

Steps in wiring a socket are shown in drawing. Briefly they are:

Push, using a screw-driver, at the place marked "PRESS" on the brass shell to take the socket apart.

Remove 1 1/2" outer insulation and thread cord through cap.

Tie holding knot in cord.

Remove 1/2" insulation from wire ends.

Attach to terminal screws on the body of socket. See above.

Reassemble socket.

